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1/18

SEQUENCE LISTING

<110> Li, Dean Park, Kye Won

<120> METHODS AND COMPOSITIONS FOR MANIPULATING THE GUIDED NAVIGATION OF ENDOTHELIAL TUBES DURING ANGIOGENESIS

<130> UUTH-P01-010 <140> US 10/519,342 <141> 2004-12-21 <150> 60/392,142 <151> 2002-06-27 <160> 6 <170> PatentIn version 3.1 <210> 1 <211> 3742 <212> DNA <213> Mouse <400> 1 caaaagtgta tgggacaagg agaggagccg agagcagcca tgggctctgg aggaacgggc 60 ctcctgggga cggagtggcc tctgcctctg ctgctgcttt tcatcatggg aggtgaggct 120 ctggattctc caccccagat cctagttcac ccccaggacc agctacttca gggctctggc 180 ccagccaaga tgaggtgcag atcatccggc caaccacctc ccactatccg ctggctgctg 240 aatgggcagc ccctcagcat ggccacccca gacctacatt accttttgcc ggatgggacc 300 ctcctgttac atcggccctc tgtccaggga cggccacaag atgaccagaa catcctctca 360 gcaatcctgg gtgtctacac atgtgaggcc agcaaccggc tgggcacagc agtgagccgg 420 ggtgctaggc tgtctgtggc tgtcctccag gaggacttcc agatccaacc tcgggacaca 480 gtggccgtgg tgggagagag cttggttctt gagtgtggtc ctccctgggg ctacccaaaa 540 ccctcggtct catggtggaa agacgggaaa cccctggtcc tccagccagg gaggcgcaca 600 gtatctgggg attccctgat ggtgtcaaga gcagagaaga atgactcggg gacctatatg 660 tgtatggcca ccaacaatgc tgggcaacgg gagagccgag cagccagggt gtctatccag 720 780 gaatcccagg accacaagga acatctagag cttctggctg ttcgcattca gctggaaaat gtgaccctgc taaaccccga acctgtaaaa ggtcccaagc ctgggccatc cgtgtggctc 840 agetggaagg tgageggeec tgetgeacet getgagteat acacagetet gtteaggaet 900

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Ala Val Asp Ser Phe Gly Phe Gly Leu Glu Pro Arg Glu Ala Asp Cys 915 920 925

Val Phe Ile Asp Ala Ser Ser Pro Pro Ser Pro Arg Asp Glu Ile Phe 930 935 940

Leu Thr Pro Asn Leu Ser Leu Pro Leu Trp Glu Trp Arg Pro Asp Trp 945 950 955 960

Leu Glu Asp Met Glu Val Ser His Thr Gln Arg Leu Gly Arg Gly Met 965 970 975

Pro Pro Trp Pro Pro Asp Ser Gln Ile Ser Ser Gln Arg Ser Gln Leu 980 985 990

His Cys Arg Met Pro Lys Ala Gly Ala Ser Pro Val Asp Tyr Ser 995 1000 1005

<210> 5

<211> 470

<212> PRT

<213> Mouse

<400> 5

Met Gly Ser Gly Gly Thr Gly Leu Leu Gly Thr Glu Trp Pro Leu Pro 1 5 10 15

Leu Leu Leu Phe Ile Met Gly Glu Ala Leu Asp Ser Pro Pro 20 25 30

Gln Ile Leu Val His Pro Gln Asp Gln Leu Leu Gln Gly Ser Gly Pro 35 40 45

Ala Lys Met Arg Cys Arg Ser Ser Gly Gln Pro Pro Pro Thr Ile Arg 50 60

Trp Leu Leu Asn Gly Gln Pro Leu Ser Met Ala Thr Pro Asp Leu His 65 70 75 80

- Tyr Leu Leu Pro Asp Gly Thr Leu Leu Leu His Arg Pro Ser Val Gln 85 90 95
- Gly Arg Pro Gln Asp Asp Gln Asn Ile Leu Ser Ala Ile Leu Gly Val
- Tyr Thr Cys Glu Ala Ser Asn Arg Leu Gly Thr Ala Val Ser Arg Gly
 115 120 125
- Ala Arg Leu Ser Val Ala Val Leu Gln Glu Asp Phe Gln Ile Gln Pro 130 135 140
- Arg Asp Thr Val Ala Val Val Gly Glu Ser Leu Val Leu Glu Cys Gly 145 150 155 160
- Pro Pro Trp Gly Tyr Pro Lys Pro Ser Val Ser Trp Trp Lys Asp Gly
 165 170 175
- Lys Pro Leu Val Leu Gln Pro Gly Arg Arg Thr Val Ser Gly Asp Ser 180 185 190
- Leu Met Val Ser Arg Ala Glu Lys Asn Asp Ser Gly Thr Tyr Met Cys 195 200 205
- Met Ala Thr Asn Asn Ala Gly Gln Arg Glu Ser Arg Ala Ala Arg Val 210 215 220
- Ser Ile Gln Glu Ser Gln Asp His Lys Glu His Leu Glu Leu Leu Ala 225 230 235 240
- Val Arg Ile Gln Leu Glu Asn Val Thr Leu Leu Asn Pro Glu Pro Val 245 250 255
- Lys Gly Pro Lys Pro Gly Pro Ser Val Trp Leu Ser Trp Lys Val Ser 260 265 270
- Gly Pro Ala Ala Pro Ala Glu Ser Tyr Thr Ala Leu Phe Arg Thr Gln 275 280 285
- Arg Ser Pro Arg Asp Gln Gly Ser Pro Trp Thr Glu Val Leu Leu Arg 290 295 300
- Gly Leu Gln Ser Ala Lys Leu Gly Gly Leu His Trp Gly Gln Asp Tyr 305 310 315 320

Glu Phe Lys Val Arg Pro Ser Ser Gly Arg Ala Arg Gly Pro Asp Ser 325 330 335

Asn Val Leu Leu Leu Arg Leu Pro Glu Gln Val Pro Ser Ala Pro Pro 340 345 350

Gln Gly Val Thr Leu Arg Ser Gly Asn Gly Ser Val Phe Val Ser Trp 355 360 365

Ala Pro Pro Pro Ala Glu Ser His Asn Gly Val Ile Arg Gly Tyr Gln 370 375 380

Val Trp Ser Leu Gly Asn Ala Ser Leu Pro Ala Ala Asn Trp Thr Val 385 390 395 400

Val Gly Glu Gln Thr Gln Leu Glu Ile Ala Thr Arg Leu Pro Gly Ser 405 410 415

Tyr Cys Val Gln Val Ala Ala Val Thr Gly Ala Gly Ala Gly Glu Leu
420 425 430

Ser Thr Pro Val Cys Leu Leu Glu Gln Ala Met Glu Gln Ser Ala 435 440 445

Arg Asp Pro Arg Lys His Val Pro Trp Thr Leu Glu Gln Leu Arg Ala 450 455 460

Thr Leu Arg Arg Pro Glu 465 470

<210> 6

<211> 469

<212> PRT

<213> Homo sapiens

<400> 6

Met Gly Ser Gly Gly Asp Ser Leu Leu Gly Gly Arg Gly Ser Leu Pro 1 10 15

Leu Leu Leu Leu Ile Met Gly Gly Met Ala Gln Asp Ser Pro Pro 20 25 30

Gln Ile Leu Val His Pro Gln Asp Gln Leu Phe Gln Gly Pro Gly Pro 35 40 45

- Ala Arg Met Ser Cys Gln Ala Ser Gly Gln Pro Pro Pro Thr Ile Arg 50 55 60
- Trp Leu Leu Asn Gly Gln Pro Leu Ser Met Val Pro Pro Asp Pro His 65 70 75 80
- His Leu Leu Pro Asp Gly Thr Leu Leu Leu Gln Pro Pro Ala Arg
 85 90 95
- Gly His Ala His Asp Gly Gln Ala Leu Ser Thr Asp Leu Gly Val Tyr 100 105 110
- Thr Cys Glu Ala Ser Asn Arg Leu Gly Thr Ala Val Ser Arg Gly Ala 115 120 125
- Arg Leu Ser Val Ala Val Leu Arg Glu Asp Phe Gln Ile Gln Pro Arg 130 135 140
- Asp Met Val Ala Val Val Gly Glu Gln Phe Thr Leu Glu Cys Gly Pro 145 150 155 160
- Pro Trp Gly His Pro Glu Pro Thr Val Ser Trp Trp Lys Asp Gly Lys 165 170 175
- Pro Leu Ala Leu Gln Pro Gly Arg His Thr Val Ser Gly Gly Ser Leu 180 185 190
- Leu Met Ala Arg Ala Glu Lys Ser Asp Glu Gly Thr Tyr Met Cys Val 195 200 205
- Ala Thr Asn Ser Ala Gly His Arg Glu Ser Arg Ala Ala Arg Val Ser 210 215 220
- Ile Gln Glu Pro Gln Asp Tyr Thr Glu Pro Val Glu Leu Leu Ala Val 225 230 235 240
- Arg Ile Gln Leu Glu Asn Val Thr Leu Leu Asn Pro Asp Pro Ala Glu 245 250 255
- Gly Pro Lys Pro Arg Pro Ala Val Trp Leu Ser Trp Lys Val Ser Gly
 260 265 270
- Pro Ala Ala Pro Ala Gln Ser Tyr Thr Ala Leu Phe Arg Thr Gln Thr 275 280 285

- Ala Pro Gly Gly Gln Gly Ala Pro Trp Ala Glu Glu Leu Leu Ala Gly 290 295 300
- Trp Gln Ser Ala Glu Leu Gly Gly Leu His Trp Gly Gln Asp Tyr Glu 305 310 315 320
- Phe Lys Val Arg Pro Ser Ser Gly Arg Ala Arg Gly Pro Asp Ser Asn 325 330 335
- Val Leu Leu Arg Leu Pro Glu Lys Val Pro Ser Ala Pro Pro Gln 340 345 350
- Glu Val Thr Leu Lys Pro Gly Asn Gly Thr Val Phe Val Ser Trp Val 355 360 365
- Pro Pro Pro Ala Glu Asn His Asn Gly Ile Ile Arg Gly Tyr Gln Val 370 375 380
- Trp Ser Leu Gly Asn Thr Ser Leu Pro Pro Ala Asn Trp Thr Val Val 385 390 395 400
- Gly Glu Gln Thr Gln Leu Glu Ile Ala Thr His Met Pro Gly Ser Tyr 405 410 415
- Cys Val Gln Val Ala Ala Val Thr Gly Ala Gly Ala Gly Glu Pro Ser 420 425 430
- Arg Pro Val Cys Leu Leu Glu Gln Ala Met Glu Arg Ala Thr Gln 435 440 445
- Glu Pro Ser Glu His Gly Pro Trp Thr Leu Glu Gln Leu Arg Ala Thr 450 455 460

Leu Lys Arg Pro Glu 465